

*Secretary*

**Borough of Whitehaven**



# **ANNUAL REPORT**

**OF THE**

**MEDICAL OFFICER**

**OF HEALTH**

**FOR THE YEAR 1960**

**AND REPORT OF THE**

**CHIEF PUBLIC HEALTH**

**INSPECTOR**



**BOROUGH OF WHITEHAVEN  
HEALTH AND HOUSING COMMITTEE,  
1960-61.**

*Chairman* ..... Alderman J. Walsh.

*Vice-Chairman* ..... Councillor Thompson Reed

*Members:* THE MAYOR (Councillor F. Baxter).

Aldermen J. Blamire, W. E. Knipe and W.  
Stephenson.

Councillors J. Boylan, W. J. Denvir and G.  
Hanlon.

**HEALTH DEPARTMENT STAFF**

*Medical Officer of Health:*

J. N. Dobson, M.B., Ch.B., D.P.H.

*Chief Public Health Inspector:*

A. A. Beldon, C.R.S.I.

*Additional Health Inspectors:*

P. Eldon, C.R.S.I.

J. F. Lord, C.R.S.I.                      (*Temporary appointment*)

*Clerk:* Miss I. Davidson.

*Clerk-Typist:* Miss G. Banks.

Tel:  
Whitehaven 2661.

*Health Department,*  
*53, Duke Street,*  
Whitehaven.

Mr. Mayor, Councillor Mrs. Colley and Gentlemen,

To make the medical officer's report readable without omitting the many figures required by statute is a difficult task. When other statistics must be given in addition, so that readers may draw their own conclusions if they wish, the problem is insurmountable. It can be said, however, that no table presented in these reports over the years has escaped scrutiny, almost all have been re-cast and abbreviated. The indigestible remainder receives some commentary in the text and will not be greatly enlarged on here. The vital statistics for the year were, in fact generally satisfactory but for a jump in the perinatal mortality rate.

A fall in the general death rate may be noticed and this saving was evidently in the right group, for deaths under sixty-five years of age were reduced from 44% of the total in 1959 to 36% of the total in 1960. This is more in keeping with the England and Wales figure from which we have always diverged too widely. Why, indeed, our death rate remains above the national average escapes me. This is a prosperous community, for the most part well housed, with a pure water supply, no air pollution problems to be compared with those of the cities, a low cancer death rate, little infectious disease and whose tuberculosis problem, though important, has a negligible influence on the death rate. The most likely explanation possibly is that most deaths occur amongst those who were adults in the years of the depression for whom the present benefits have come too late. At the same time it may be noted that the Registrar General's comparability factor, on which is based the adjusted death rate, is weighted somewhat heavily against Whitehaven.



While figures are still under consideration, those kindly supplied by the County Medical Officer respecting immunisation and vaccination show distinct falls in the numbers of infants being protected against smallpox, diphtheria and poliomyelitis. Any one of these three diseases can occur at any time and the result would be panic attendances at clinics for immunisation. That might not be so bad if protection could be given over-night. Unfortunately immunity takes some weeks to develop. The present position then is that we are moderately, but not seriously as yet, vulnerable to attack.

As noted by the Chief Public Health Inspector the work of slum clearance continued in 1960 when four Clearance Areas were represented, a total of 274 unfit dwelling houses being dealt with under Housing Act procedure of one kind or another. The present difficulty is to build houses fast enough to re-house the displaced tenants.

The Report, as directed by the Minister of Health, gives some account of the water and sewerage provision for the Borough, while a sanitary matter worthy of mention also is the attention given by the Health and Housing and Highways Committees to the problem of refuse disposal. Here, an investigation of the practicability of refuse collection in disposable paper sacks revealed a number of prohibiting features, quite apart from a 25% increase in the cost of collection, or threepence on the rates. In short, paper sacks are not the solution to Whitehaven's refuse problem, for problem there certainly is. Refuse collectors, with the best will in the world, cannot empty a dustbin into a skip at the house door and carry that skip to be tipped into a vehicle without creating volumes of dust, and very often spillage too.

A variety of alternatives have been considered from time to time and practical considerations, which vary widely over the district, rule out some suggestions that have been made. Naturally the aim is improvement with continued operating economy, but these wishes are irreconcilable. Any service

can be made better at a cost, but not everyone would welcome substantial increases to ensure cleaner collection of refuse.

New legislation introduced during the year included the Caravan Sites and Control of Development Act, the Noise Abatement Act, and new regulations concerning specially designated milk, food hygiene, and notification of anthrax. Attention was drawn in the preceding report to the inability of this Department to fulfil adequately its existing obligations and, not least in view of these amended and increased duties, it is pleasing to say that the vacancy for an additional public health inspector had been filled by the time this report came to be written. Another gap was the lack of an approved medical officer to be responsible for duties under the Public Health (Ships) Regulations in the absence of the medical officer of health. This was filled at the end of the year when Doctors R. W. Chalmers and J. McIntosh agreed to undertake this obligation.

I am glad to have once again the opportunity of acknowledging the continued support of the Health Department staff and the helpful co-operation of all other Departments.

I am, Mr. Mayor, Madam and Gentlemen,

Your obedient Servant,

J. N. DOBSON,

*Medical Officer of Health.*

## SECTION A.

### STATISTICAL SUMMARY

#### General Statistics :

Area of Borough in acres	...	...	...	4,315
Registrar-General's estimate of resident population (mid-year, 1960)	...	...	...	26,450
Persons per acre	...	...	...	6.13
Number of inhabited houses (end of 1960) according to Rate Books	...	...	...	7,681
Rateable Value on 1st April, 1961	...	...	...	£269,091
Estimated Product of Penny Rate	...	...	...	£1,040

### VITAL STATISTICS

#### BIRTHS.

##### Live Births :

Number	...	...	...	...	568
Rate per 1,000 population	...	...	...	...	20.6
Illegitimate Live Births (per cent. of total live births)	...	...	...	...	4.6

##### Stillbirths :

Number	...	...	...	...	19
Rate per 1,000 total live and still births	...	...	...	...	32.4
Total Live and Still Births	...	...	...	...	587

#### DEATHS.

<b>Infant Deaths</b> (deaths under 1 year)	...	...	...	19
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##### Infant Mortality Rates :

Total infant deaths per 1,000 total live births	...	...	...	33.4
Legitimate infant deaths per 1,000 legitimate live births	...	...	...	35.0
Illegitimate infant deaths per 1,000 illegitimate live births	...	...	...	Nil.

Neo-natal Mortality Rate (deaths under 4 weeks per 1,000 total live births)	...	...	...	22.9
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Early Neo-natal Mortality Rate (deaths under 1 week per 1,000 total live births)	...	...	...	17.6
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Perinatal Mortality Rate (stillbirths and deaths under 1 week combined per 1,000 total live and stillbirths)	...	...	...	49.4
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##### Maternal Mortality (including abortion)

Number of deaths	...	...	...	...	Nil.
Rate per 1,000 total live and still births	...	...	...	...	Nil.

<b>Deaths at all ages</b>	...	...	...	...	283
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Death Rate per 1,000 population	...	...	...	...	12.5
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Statistics for the Borough are shown in relation to those for the County and England and Wales in Table 1.

**TABLE 1.**  
**Comparative Statistics.**

				Birth Rate	Death Rate	Infant Mortality Rate
Whitehaven Borough	...	...	..	20.6	12.5	33.4
Cumberland (Administrative County)	...	...	...	18.0	12.0	23.1
England and Wales	...	...	...	17.1	11.5	21.7

Birth rates for the last five years are summarized in Table 2. The level for the town remains notably higher than the national rate, but the latter in recent years has increased more rapidly than has Whitehaven's.

**TABLE 2.**  
**Birth Rates.**

Year	Number of Births		Birth Rate per 1,000 of population :	
			Whitehaven	England & Wales
1956	...	534	19.9	15.6
1957	...	563	20.8	16.1
1958	...	526	20.1	16.4
1959	...	555	20.3	16.5
1960	...	568	20.6	17.1

Table 3 shows death rates over past five years.

**TABLE 3.**  
**Death Rates.**

Year	Number of Deaths		Death Rate per 1,000 of population :	
			Whitehaven	England & Wales
1956	...	314	14.0	11.7
1957	...	295	13.4	11.5
1958	...	306	13.8	11.7
1959	...	323	14.0	11.6
1960	...	283	12.5	11.5



The death rate in 1960 was the lowest for some years. There was no dramatic reduction in any one cause, the principal saving being in deaths from heart disease. At the same time one is always pleased to see fewer deaths from cancer, while respiratory illness, other than lung cancer, caused only seventeen deaths, a remarkably low figure.

Tuberculosis accounted for four deaths which are referred to later in the report. Road accidents wasted six lives in which youth figured predominantly.

No death took place from maternal causes. The maternal mortality rate for England and Wales in 1960 was 0.31 deaths per 1,000 total live and still births.

**TABLE 4.**  
**Infant Death Rate.**

Year	Number of Infant Deaths		Death rate per 1,000 live births :	
			Whitehaven	England & Wales
1956	...	20	37	24
1957	...	15	28	23
1958	...	23	44	23
1959	...	14	25	22
1960	...	19	33	22

Infant mortality, which was low in 1959, surged upwards again last year. Though by no means the highest figure in recent years, the nineteen infant deaths in 1960 combined with an increased number of still births to give an increase in the perinatal mortality rate from 35.2 to 49.4.

There was a scatter of causes amongst infant deaths so that no one factor predominated, except perhaps for three deaths due to asphyxia resulting from inhalation of vomit. The cause was confirmed by post mortem examination in each of these cases.

TABLE 5.

Deaths of Infants Under 1 Year of Age.

Cause of Death	Age in Weeks				Age in Months				Totals
	0—	1—	2—	3—	1—	3—	6—	9—	
Prematurity	4	—	—	—	—	—	—	—	4
Atelectasis	1	—	—	—	—	—	—	—	1
Congenital malformations	2	1	—	1	—	—	—	—	4
Bronchopneumonia	—	—	—	1	—	3	—	—	4
Asphyxia	—	—	—	—	1	2	—	—	3
Inhalation Pneumonia	1	—	—	—	—	—	—	—	1
Postmaturity	1	—	—	—	—	—	—	—	1
Intracranial haemorrhage	1	—	—	—	—	—	—	—	1
Under 1 month				Over 1 month					
13				6				19	
Total deaths	...	...	...	...	...	...	...	...	

## Cancer Mortality.

There were 41 deaths from cancer, the primary sites of the disease being shown in Table 6, while in Table 7 are given death rates for the Borough and England and Wales.

**TABLE 6.**  
**Deaths from Cancer.**

Location of Disease	Male	Female	Total
Stomach ... ..	6	5	11
Colon and Rectum ... ..	—	1	1
Pancreas ... ..	2	—	2
Lung and Bronchus ... ..	5	1	6
Breast ... ..	—	2	2
Uterus ... ..	—	1	1
Ovary ... ..	—	2	2
Other sites ... ..	4	8	12
Primary site unknown	2	2	4
	19	22	41

The death rate from cancer continues to be substantially less than the rate for England and Wales. There were fewer cases of lung cancer than usual, other common causes remaining about the usual level. While the overall rate was low, an unusual feature was the number of relatively young people who died. More than one third of the deaths were of men and women under fifty, six indeed being less than forty years of age.

**TABLE 7.**  
**Cancer Death Rates.**

Year	Number of Deaths	Annual Death Rate per 1,000 of population :	
		Whitehaven	England & Wales
1956	... 49	1.90	2.07
1957	... 39	1.50	2.09
1958	... 40	1.53	2.12
1959	... 46	1.75	2.14
1960	... 41	1.55	2.16

**TABLE 8.**  
**CAUSES OF DEATH DURING THE YEAR 1960.**  
**Registrar-General's Classification**

	Males	Females
Tuberculosis of Respiratory System ...	4	—
Other Tuberculous Diseases ...	—	—
Syphilitic Disease ...	—	—
Diphtheria ...	—	—
Whooping Cough ...	—	—
Meningococcal infections ...	—	—
Acute Poliomyelitis ...	—	—
Measles ...	—	—
Other infective and Parasitic Diseases	—	1
Malignant Neoplasm, Stomach ...	6	5
Malignant Neoplasm, Lung and Bronchus	5	1
Malignant Neoplasm, Breast ...	—	2
Malignant Neoplasm, Uterus ...	—	1
Other Malignant & Lymphatic Neoplasms	8	13
Leukaemia, Aleukaemia ...	—	1
Diabetes ...	—	—
Vascular Lesions of Nervous System	20	25
Coronary Disease, Angina ...	27	15
Hypertension with Heart Disease ...	3	3
Other Heart Disease ...	17	9
Other Circulatory Disease ...	5	4
Influenza ...	—	—
Pneumonia ...	3	6
Bronchitis ...	4	1
Other Diseases of Respiratory System	2	1
Ulcer of Stomach and Duodenum ...	1	—
Gastritis, Enteritis and Diarrhoea ...	—	3
Nephritis and Nephrosis ...	1	1
Hyperplasia of Prostate ...	3	—
Pregnancy, Childbirth, Abortion ...	—	—
Congenital Malformations ...	1	5
Other Defined and Ill-defined Diseases	20	37
Motor Vehicle Accidents ...	6	—
Suicide ...	—	—
Homicide and Operations of War ...	—	—
All Other Accidents ...	6	7
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Total (all Causes) ...	142	141
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## Section B.

### GENERAL PROVISION OF HEALTH SERVICES

#### (a) Staff.

Changes in staff are shown on page 1 of this report.

#### (b) Laboratory Facilities.

Use is made of the bacteriological facilities at Whitehaven Hospital under the direction of Dr. A. C. F. Ogilvie, and of the Public Health Laboratory Service at the Cumberland Infirmary directed by Dr. D. G. Davies. Analytical services are provided by Messrs. Ruddock and Sherratt, Public Analysts, Warrington.

#### (c) Local Health Authority Services.

Medical services provided under Part III of the National Health Service Act are the responsibility of the Cumberland County Council. Information about the provision of Home Nursing, Home Helps, Immunisation and other services is available at the office of the Senior Assistant County Medical Officer, Area Health Office, Flatt Walks, Whitehaven.

Clinics are held as follows:—

		Location :—		
Type of Clinic		Flatt Walks	Mirehouse	Woodhouse
School Clinic	...	Wed. 10-11 a.m.	Tue. 2-3 p.m.	Wed. 9-10 a.m.
Child Welfare	...	Tue. 2-4 p.m.	Tue. 2-4 p.m.	Wed. 2-4 p.m.
Ante-Natal	...	Fri. 2-4 p.m.	Wed. 2-4 p.m.	Mon. 2-4 p.m.
Dental	...	Daily 9-30 a.m.	—	—

Attendance at the consultant and other special clinics at Flatt Walks is by appointment only. Sessions are held as follows; paediatric, ophthalmic, ear, nose and throat, orthopaedic, speech therapy, hearing assessment and training, and chiropody. Orthoptic treatment is given at Whitehaven Hospital.

The Occupation Centre, Flatt Walks, has 40 places for subnormal children.

**(d) Hospital Services.**

Facilities provided by the Regional Hospital Board include Whitehaven Hospital, Flatt Walks: 120 beds. General hospital services, except for medical cases, which are now admitted to the West Cumberland Hospital.

The first stage of the new West Cumberland Hospital at Hensingham was completed and brought into use in December, 1959. The accommodation at present includes 60 geriatric, 24 medical and 16 psychiatric beds.

Homewood Annexe has 41 beds for tuberculosis and diseases of the chest.

The Hollins, Hensingham: 31 beds Pre-convalescent surgical cases with a small number of gynaecological beds.

Galemire, Cleator Moor: 24 beds for the chronic sick.

The Chest Clinic serving the area is at St. Bridget's Lane, Egremont.

Part III hospital accommodation is available in Meadow View House, Whitehaven (30 beds) by joint user agreement with Cumberland County Council.

**(e) National Assistance Acts.**

No legal action was taken during the year to secure proper care and attention for the elderly and chronic sick.

## Section C.

### SANITARY CIRCUMSTANCES OF THE AREA.

A report by the Chief Public Health Inspector on the work of the year has been submitted and will be found at the end of this report.

#### Water Supply.

A report on the town's water giving the information required by the Minister for the year 1960 is supplied by the Chief Public Health Inspector, while the Borough Engineer and Surveyor reports on the adequacy of water supply in the following terms:—

“The water supply during 1960 was adequate and of the usual good standard. Due to increasing industrial needs the reserve capacity in the existing pipe lines has gradually dwindled until at a daily average of approximately 6 million gallons the demand now exceeds the designed capacity of the mains. Industrial needs will increase the demand for water to 8 m.g.d. by September 1961, and an additional main will be laid to increase the flow from Hazelholme to Summergrove. Thus by the end of 1961 the demand will have equalled the available take from Ennerdale Lake without any margin for future industrial expansion, and to meet the increasing domestic needs improved waste water detection schemes will have to be introduced.

“Requests have been made for further industrial water by the end of 1963 and to meet such demands it would be necessary to implement the Whitehaven Water Order 1947 which grants the Corporation power to raise the level of Ennerdale Lake by 4ft. 6ins. and to increase the take to 14 m.g.d.”

It may be concluded that the water supply of Whitehaven is of good quality and sufficient for all domestic purposes at present.



### **Sewerage.**

The town's sewage is discharged untreated through an outfall on the south beach at the low water mark of ordinary tides. This point is rather more than a quarter of a mile south of the harbour and there is considerable pollution of the shore hereabouts. No immediate nuisance arises from this however as the beach concerned is relatively inaccessible at the foot of the cliffs, consists of rocks and shingle, and is quite unsuited for play purposes or bathing. It is deserted as a rule.

The town's sewers are more than adequate to cope with any foreseeable development.

### **Milk.**

The year 1960 saw the introduction of new milk regulations under which the control of licensing passed to the County Council. By agreement between the two authorities the Borough's public health inspectors continue to sample dealers' milk on behalf of the County Council, but the responsibility for seeing that the milk is satisfactory from distributor to consumer is now strangely confused.

A man purveying unsatisfactory designated milk faces the loss of his licence if he cannot or will not put it right; the duty to see that he does so falls on the County Council. At the same time the Borough Council remains the registration authority by virtue of the Milk and Dairies (General) Regulations, 1959 and must satisfy itself as to the quality, storage and distribution of milk sold from premises within their district. By contrast, the licensing authority is charged with satisfying itself as to storage and distribution (but not quality) and also production, handling and treatment.

This is a curious overlap of functions and one that could be embarrassing without the goodwill which obtains on both sides in enforcing the regulations. While it is pleasant to record the efforts of the County Council to be of every possible assistance that does not alter the fact that the new regulations mean more delay in eliminating the cause of bad samples. So far as this district is concerned the new regulations are a step backwards.



## Section D.

### PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

Notifications, other than those of tuberculosis, are shown in Table 9.

**TABLE 9.**  
**Infectious Disease Notifications.**

Disease	No. of cases notified		Died
Scarlet Fever	...	10	—
Whooping Cough	...	39	—
Measles	...	675	—
Acute Encephalitis	...	1	—
Puerperal pyrexia	...	2	—

Although measles was prevalent during the year Whitehaven suffered little inconvenience from infectious disease. There was no outbreak of influenza and no major notifiable disease. No cases of diphtheria or poliomyelitis occurred, and there were no deaths from measles or whooping cough.

Anthrax became notifiable to local authorities in December, supplementing existing procedure for notification to the Ministry of Labour and National Service under the Factories Acts. At the same time, Regional Hospital Boards were required to designate hospitals with suitable facilities for the diagnosis and treatment of anthrax. The designated hospital in Cumberland is the West Cumberland Hospital, Hensingham.

#### **Food Poisoning.**

There were two known outbreaks of food poisoning during the year, fortunately neither of them serious. There is often no single factor responsible in these occurrences. The effects are dependent on the dose of infection or toxin consumed, and the resistance of the consumer. Small doses may have no effect on a healthy person but many people cannot resist massive dosage resulting from contamination of food and subsequent mishandling in more than one way. Such a sequence of events took place in the first outbreak.

A hospital cook had a sharp attack of diarrhoea on 17th January which she put down to "cold striking her when pushing a trolley" Feeling well next day she went on duty and cut up 50lbs. of steak which was then simmered for a couple of hours, left three or four hours to cool and refrigerated overnight. The following day other cooks prepared twelve large steak pies from this meat.

Only four pies could be cooked at one time, and those going into the ovens first had to be kept hot for some two hours before serving. Cooking was slower than usual as the ovens had been "slow" for a few days, a trouble later traced to a main gas tap not fully on.

The capacious modern hot cupboard in the kitchen also was at fault. It wasn't working, owing to a leaking steam pipe. Consequently the cooked pies were kept warm on a hotplate—which wasn't very—or on top of the ovens. When the time came for distribution they were placed in heated trolleys for delivery to various points. These trolleys satisfied later temperature checks, but even so one had yielded up its pies virtually cold in the laundry mess-room. In this case there had been premature disconnection from the electricity supply.

There followed a typical outbreak of *Clostridium welchii* food poisoning, which in most cases means an attack of diarrhoea occurring about twelve hours after the meal responsible. So far as could be traced, 137 people ate the pie, of whom 51 were made ill. Fortunately no more than 14 patients were affected, and these only slightly. The burden of the attack fell on the staff, of whom the laundry and domestic workers were most badly hit. A small number of contractor's men who had obtained meat pie, but were uninvited guests so far as the hospital was concerned, suffered attacks as a result.

Bacteriological tests confirmed the suspected cause of the outbreak. Was it, in fact, anything to worry about? One encounters a type of person who regards food poisoning

as "a fancy name for a bit of diarrhoea" and as something of a joke against the sufferer. It is true enough that with *Clostridium welchii* infection the illness is brief. Nevertheless it has become increasingly common in recent years, particularly in hospitals and canteens, and not only makes some people violently ill but occasionally causes death. Furthermore the occurrence of any type of food poisoning, slight or severe, is generally an indication that handling errors have taken place. Here for example there was preparation of the meat with hands almost certainly contaminated from the bowel. Pre-cooking should have been avoided, and large pies in any event are more trouble-prone than small ones. The slow ovens and hot cupboard failure could hardly have been bettered as a method of aggravating the production of food poisoning germs. Yet no one person at the time could have been aware of all the gathering forces of food poisoning.

The kitchen in this case was well-equipped but of a temporary nature owing to development. The catering was under contract arrangements and the managerial staff at the time was badly overworked. While this stress was for a limited period, it certainly made a contribution to the faults discovered. It will be realised that, apart from the foolishness of the cook who went on duty without reporting her diarrhoea, the faults were technical and apparent as a possible cause of food poisoning only to trained caterers or health staff. The general hygiene was of a high standard and reflected the keen attitude of both hospital administrative and catering personnel to clean food handling.

Some months later another hospital had a small outbreak of food poisoning, again due to *Clostridium welchii*. Only seven persons were affected, all of whom were members of the staff. Here again the onset at the same time to within a few hours indicated a particular meal and the only article of food eaten by all the sufferers was roast leg of lamb. This was imported meat delivered four days before use, roasted, sliced, and kept hot for anything up to three and a half hours before serving.



There was no lack of cleanliness in this procedure, but it was favourable to the growth of *Clostridium welchii* in a joint already infected. This infection cannot be prevented, though good slaughterhouse hygiene does something to reduce it. The prevention of food poisoning from it lies in handling the meat so as to give the least possible chance to the germs to multiply. The ideal temperature for their growth is 100 - 120° F. and considerable multiplication can take place in two or three hours. This is just about the temperature meat reaches when kept on top of a hot plate.

To destroy the germ spores requires a temperature of 230° F. which one would imagine would be readily reached in roasting and, indeed, roast meat is a much less common source of trouble in this respect than stewed meat. The temperatures actually reached in stewing or roasting meat were a matter for speculation until investigations\* were made recently, utilising thermocouples placed at various points in the meat and linked to automatic recording apparatus during cooking. While the surface of the joint may reach the 230° F. level after a hour and a half of roasting, the centre fails to get within 20° of this even after three hours. This applies to quite small joints. Larger joints such as those favoured by hospitals and canteens need slower cooking and the temperatures reached are much lower. The oft-repeated advice is plainly sound; choose smaller joints, cook as quickly as is practicable, and keep the meat hot at 145° F. or more till served. Re-heated meat is to be avoided, while pre-cooking and slow cooling is positively dangerous.

The conclusion to be drawn from these two outbreaks is that cleanliness in kitchens does not automatically mean safety, particularly in large catering establishments which have problems never encountered by the housewife. Avoidance of trouble requires adherence to established safe procedures, and strict observation of the temperature rules prescribed in the Food Hygiene Regulations.



Finally, mention must be made of an isolated case of food poisoning due to salmonella typhi-murium. An elderly woman was taken ill, admitted to hospital and died within twenty four hours. Enquiry showed that she had regularly taken meals out in a variety of places, and no-one else in her household had had any illness. The source of her infection could not be traced.

\* Sylvester, P.K. and Green, J. (1961): Med. Off. 105,231.

**TUBERCULOSIS**

Notifications in 1960 were received as follows:—

**TABLE 10.**

**Tuberculosis Notification.**

	Respiratory	Non-Respiratory	Total
Male	10	—	10
Female	9	1	10
Total	19	1	20

After two good years in which the incidence rate compared very favourably with that of England and Wales there was a slight increase in tuberculosis, but not of significant extent. There were only four more cases indeed than in 1959, and the numbers hardly justify the customary table showing the breakdown into age groups. This is therefore discontinued, as for some years it has shown only the well known pattern of infection occurring predominantly in younger females and older males.

A comparison of incidence with England and Wales has been made each year since 1956 however, and figures to date are now shown in Table 11.

**TABLE 11.**  
**Tuberculosis Incidence.**  
**Notifications per 100,000 of the Population.**

Year	Respiratory :		Non Respiratory :	
	Whitehaven.	England & Wales.	Whitehaven.	England & Wales.
1956	159	71	8	9
1957	108	64	15	8
1958	65	59	4	8
1959	60	57	—	7
1960	72	47	4	6

The accelerated decline in tuberculosis in recent years has faltered in the last year or so, but the overall figures have fallen to the level at which two or three notifications more or less exert a disproportionate influence on the overall picture. There need be no dissatisfaction over the tuberculosis situation, and it is not expected that in the near future there will be any dramatic fall in the incidence level now reached.

Of the notified pulmonary cases the proportion found to be infectious at diagnosis is still too high however. There is something like one infectious patient out of every three cases diagnosed in Whitehaven, a greater proportion than in any District in West Cumberland except Ennerdale Rural District. The cause is nothing more or less than delay in diagnosis, the vast majority of which is due to reluctance of the patient to attend his doctor in the first place. Fewer and fewer new cases are being found through "contact" examinations of the patient's family, and mass radiography can no more empty the infector pool than a fountain pen suck the last drops of ink from the bottle. Despite the Welfare State and provision of a National Health Service, the individual must still accept some responsibility for his own health and well-being. Certainly we look forward to the availability of a new Chest Centre in the West Cumberland Hospital awaiting completion in Whitehaven. But a prompt and efficient diagnostic service already exists, and local bed availability for those who require it is immediate.

Table 12 showing death rates from tuberculosis somewhat exaggerates the position. One man unquestionably died of tuberculosis but, though the other three deaths occurred in notified cases, the actual certified principal causes were broncho-pneumonia in one and heart disease in two. The allocation of tuberculosis as the cause of death by the Registrar General was a surprise in three of the four deaths recorded.

**TABLE 12.**  
**Deaths from Tuberculosis (Rates per million).**

Year	Respiratory Tuberculosis				All forms of Tuberculosis		
	Whitehaven.		England & Wales.		Whitehaven		England & Wales.
	No. of	Death	Death	...	No. of	Death	Death
	Deaths	Rate	Rate		Deaths	Rate	Rate
1956 .....	2	78	110	...	2	78	120
1957 .....	2	77	95	...	3	110	110
1958 .....	2	76	89	...	2	76	100
1959 .....	5	190	77	...	5	190	85
1960 .....	4	151	68	...	4	151	75

**Mass X-Ray.**

The number of cases of active pulmonary tuberculosis discovered by Mass X-ray in Whitehaven since the service began is shown in Table 13.

**TABLE 13.**  
**Mass X-RAY Statistics.**

Year	Number X-rayed	New active cases discovered by X-ray	Notifications during year
1952	3,513	11	23
1953	3,352	13	44
1954	3,396	10	28
1955	3,961	18	37
1956	3,974	10	41
1957	2,900	2	28
1958	1,500	1	17
1959	2,785	3	16
1960	2,743	2	19
Total	27,924	70	253

While now leading to the diagnosis of only a small proportion of new active cases of tuberculosis, the continued provision of general public surveys in this town deserves emphatic support. Besides active tuberculosis and inactive cases coming to light there are other chest conditions found which require attention, and it may be noted that two cases of lung cancer were so discovered in 1960.

**Housing.**

Four cases of tuberculosis, and one of a non-tuberculous throat and chest condition, were re-housed on medical recommendation during the year.



## VACCINATION AND IMMUNISATION

### B.C.G. Vaccination.

The year's work is summarised in the addition to the table given below.

**TABLE 14.**  
**B.C.G. Vaccination.**

Year	No. of children eligible for test	No. & %age of parents consenting	No. tested	No. & %age Mantoux positive	No. Mantoux negative	No. given B.C.G.
1955 ...	454	371 (82%)	362	124 (34%)	238	231
1956 ...	434	324 (75%)	315	149 (47%)	166	160
1957 ...	446	332 (75%)	325	111 (34%)	214	212
1958 ...	547	409 (75%)	382	129 (34%)	253	251
1959 ...	433	307 (71%)	296	88 (30%)	208	208
1960 ...	549	446 (81%)	428	91 (21%)	316	315

Immunisation against tuberculosis reached a very satisfactory level in 1960, when four out of every five parents of eligible school children consented to their children taking part. The skin tests showed a notable drop in the proportion of children now being exposed to tuberculosis in the community, and all but one of the known susceptible group were given protection with B.C.G.

The skin tests showed also that in addition to the newly discovered positive reactors, those of the group (5%) who had had B.C.G. vaccination in earlier years at the Chest Clinics were, with rare exceptions, still satisfactorily protected. Where necessary children whose protection has waned are referred back to the Chest Clinic for re-vaccination, while all those with a positive skin test are offered large film X-ray examination of the chest as a routine.

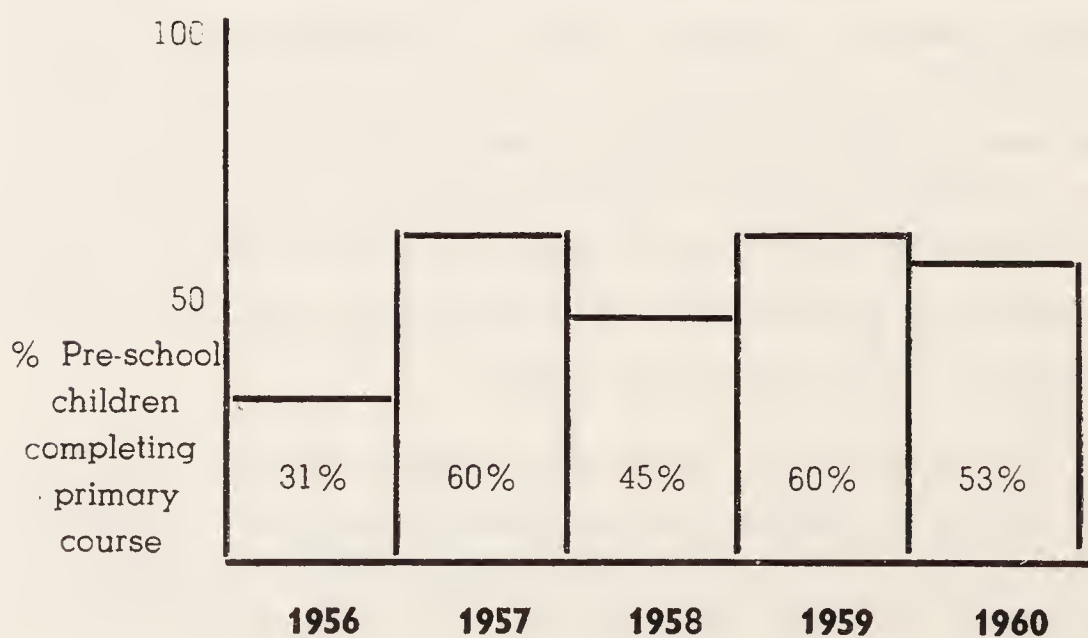
It is now six years since the scheme began to operate locally and the earlier groups participating are gradually moving nearer to what is, for girls at any rate, the tuberculous risk phase of early womanhood. Over the next six years

it should be revealed whether the protection given by B.C.G. is durable enough to overcome the danger of this period. Let us hope that it will, for success of that magnitude would virtually halve the incidence of tuberculosis.

### **Diphtheria Immunisation.**

This figure shows the numbers of children under five who completed a primary course of immunisation during the year, as a percentage of the births in the previous year. Provided the annual number of births does not fluctuate greatly the result is a useful guide to the proportion of infants being immunised each year.

On this basis only 53% of the eligible group were immunised, and for this disappointing result there is no satisfactory explanation when so very many more of the same group were immunised against whooping cough. Out of every five children immunised in 1960 two were done by local authority doctors, and as a general rule those inoculated by the latter would have had whooping cough immunisation first. The three who attended their family doctor would have had combined immunisation, and it does look rather as if many children who had whooping cough immunisation in the clinics failed to return for diphtheria protection. The gap should be closed in 1961, since combined immunisation is now the general practice in the County.

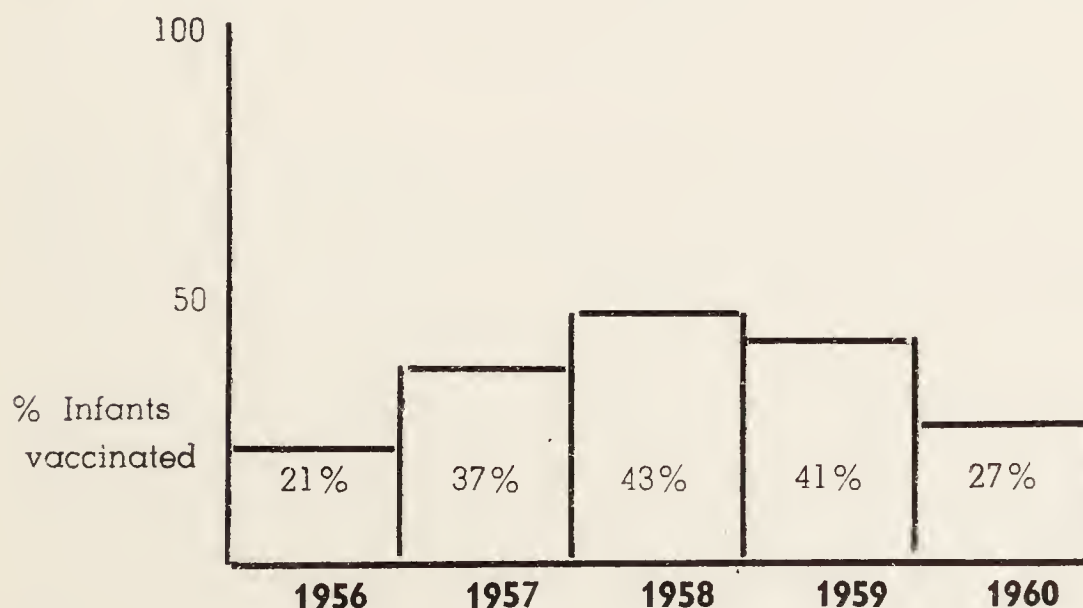


## **Pertussis Immunisation.**

Whooping cough immunisation has previously lagged behind diphtheria immunisation since none was available in County Council clinics till 1957. Indeed, only towards the end of 1960 was it known for certain that combined diphtheria and whooping cough protection would be given in 1961. The figures did improve in 1960 however, and the proportion of the year's births immunised by general practitioners and the County Council's medical officers was 76%.

## **Smallpox Vaccination.**

The level of smallpox vaccination in a community remains the most variable protective fire-screen in the country. The 1960 figure in Whitehaven for infants born in that year dropped to 27%, disappointing but understandable in some ways. The apparent remoteness of smallpox means that few parents seek vaccination for their children, while increasing pressure of work in the field of immunisation may mean that fewer doctors devote time to explaining to parents the issues involved. And, while it may be true that smallpox vaccination can be performed at any time in the first five years, this present recommendation replacing the old plea for early vaccination removes all sense of urgency from the problem. What can be done just as well tomorrow as today never gets done.





### **Poliomyelitis Vaccination.**

It is not possible to say what proportion of infants born in 1960 have been immunised against poliomyelitis, for at least half of them would not be eligible for the vaccination till 1961. What the table shows is the progress of vaccination among those infants born in 1959.

**TABLE 15.**

#### **Poliomyelitis Immunisation.**

Year of birth	Received 2 injections		Received 3 injections in 1960	Total	No. of births	% age immunised.
	in 1959 :	in 1960				
1959	31	219	64	314	568	55
1960	—	52	—			

The corresponding figures for 1959 showed 69% of 1958 births vaccinated, while in 1958 the proportion was 72%. The fact that little more than half the mothers present their infants for vaccination shows how short Whitehaven memories are for the 1956 epidemic in the town.

**REPORT  
OF THE  
CHIEF PUBLIC HEALTH  
INSPECTOR**

*Public Health Department,*  
*53, Duke Street,*  
*WHITEHAVEN.*

To the Medical Officer of Health,  
WHITEHAVEN.

Sir,

I wish to submit my tenth annual report for the year ended 31st December, 1960.

The year was relatively uneventful and I have no spectacular matters to comment upon. The work followed a regular routine with housing once again the item demanding most attention although, as you will note in the following report, the number of families re-housed from slum dwellings has again fallen and is now less than at any time since the war. There are a number of factors which affect this situation but the principal one is of course the reduction in building of Corporation dwellings. This slowing down of rehousing will materially affect the estimate of years given previously for the complete clearing of slum houses but fortunately, the problem is no longer large due to good progress a few years ago.

The inspection of meat was maintained completely and the position in this field is satisfactory. Food hygiene remains a subject not fully covered and much work lies ahead in this matter.

#### **Section A.**

#### **HOUSING.**

*NEW BUILDINGS*:—Sixty-four dwellings were completed in 1960 by the Corporation and one hundred and seventy four were under construction by the end of the year (31.12.60).

*DISPLACEMENTS*:—Thirty-seven families were rehoused in Corporation dwellings from unfit houses during the year. This number is disappointing when the figures for previous years are examined, but the need to balance the allocation of



new lettings and the reduction in the number of new dwellings provided for slum clearance and general needs (other than old persons) are relevant factors. The displacements over a single year can be misleading and the figures for three or four years should be considered together.

*PROCEDURE*:—Four Clearance Areas, the acquisition of which was deemed necessary for redevelopment of the town, were dealt with during the year and a public enquiry was held in October. Confirmation is now awaited.

In these four obsolete areas there were 168 dwellinghouses 82 of which were occupied.

Sixty unfit dwellings were dealt with under Housing Act 1957 Sec. 16 and a further six were the subject of voluntary agreements with the owners concerned.

*REPAIRS*:—These were confined to matters of urgency to prolong the life of substandard dwellings. No action was necessary to execute works under Section 9 of the Housing Act.

*IMPROVEMENTS*:—The interest taken in the provision of modern amenities to older houses continues. Many inquiries were dealt with, principally from owner-occupiers of houses lacking one or more of the five amenities set out in the Standard Grant scheme; during the year sixteen applications were received and twelve houses were improved under grant aid, all by owner-occupiers.

Little interest is shown by owners not occupiers due, no doubt to the apparent lack of return on money laid out or by a lethargic approach. This is a short sighted policy and I think that a strong case exists today of legislation to enforce the provision of what must now be regarded as reasonable—the provision of baths, hot water and sanitation. Provided a sewer and water supply is available there seems no excuse, with the grants and loans that are now available, why any dwellinghouse should be denied these advantages.

*REDEVELOPMENT*:—In the George Street Comprehensive Development Area progress continues in the demolition of obsolete dwellings and the erection of flats although

some delays were experienced. The flats are very popular and, in spite of criticism from some quarters unacquainted with the real problems of housing, they constitute a pleasing and satisfactory development of an obsolete central area of slum dwellings.

*OVERCROWDING*:—Although no survey has been made since 1936 routine housing inspection does not reveal any statutory overcrowding of houses. Overcrowding does exist in that many houses are still shared by more than one family (mainly married sons and daughters of tenants) and this problem is likely to be with us for many years to come. The present rate of house building cannot but touch the fringe of this problem with its attendant stresses and yet the answer, in this affluent age, is simple.

*RENT ACT 1957*:—In this district this Act has aroused very little interest indeed. While the Act is fair, it is by its very nature discouraging. On the one hand if a landlord increases the rent, the tenant will retaliate by demanding repairs the cost of which may never be recovered in the landlord's lifetime, on the other hand if the tenant demands repairs up goes the rent. The net result is absolute apathy. No applications for Certificates of Disrepair were received during the year.

*CARAVANS*:—While caravans present no great problem in the district this is probably due to the control of siting practised in past years. The coming into force of the Caravan Sites and Control of Development Act 1960 has done much to control the establishment of new sites and lays down standards for the first time.

The position in this district can be divided into three groups: (a) The Local Authority owned site at Woodhouse containing 45 modern vans for persons unable to secure housing accommodation and restricted to those people who are resident or employed in the area. (b) The Chartered Fair vans (with a few followers) which visit the town and take up winter quarters in the Quay Street area. (c) a small number of itinerant traders who establish themselves on a plot of common land on the outskirts of the district. This last group,

while small, is most difficult to deal with because of the short periods of time any individual van occupies a plot. Legislation is of no assistance in this case and only physical means to prevent use of the land by this class of person would appear to be the effective answer.

### RECORD OF INSPECTIONS.

Accumulations	...	...	...	...	...	46
Atmospheric Pollution	...	...	...	...	...	29
Bakehouses	...	...	...	...	...	25
Caravans	...	...	...	...	...	121
Drainage Works	...	...	...	...	...	2
Drains tested	...	...	...	...	...	4
Drains repaired	...	...	...	...	...	25
Disinfestations	...	...	...	...	...	11
Factories	...	...	...	...	...	99
Fish Friers	...	...	...	...	...	21
Food Shops	...	...	...	...	...	151
Food Preparers	...	...	...	...	...	107
Housing Acts	...	...	...	...	...	424
Ice Cream Premises	...	...	...	...	...	32
Infectious Disease Inquiries	...	...	...	...	...	29
Infectious Disease Fumigations	...	...	...	...	...	1
Interview with owners/occupiers	...	...	...	...	...	553
Licensed Premises	...	...	...	...	...	21
Marine Stores	...	...	...	...	...	12
Milk Shops and Dairies	...	...	...	...	...	37
Outworkers	...	...	...	...	...	—
Overcrowding	...	...	...	...	...	6
Pet Animals Act	...	...	...	...	...	6
Public Health Act	...	...	...	...	...	157
Rag Flock Act	...	...	...	...	...	3
Rent Act 1957	...	...	...	...	...	21
Rodent Control	...	...	...	...	...	120
Repairs revisits	...	...	...	...	...	—
Restaurants	...	...	...	...	...	25
Slaughterhouses	...	...	...	...	...	700
Swimming Baths	...	...	...	...	...	6
Verminous Premises	...	...	...	...	...	—
Vessels in Harbour	...	...	...	...	...	93
Water Samples	...	...	...	...	...	15
Miscellaneous	...	...	...	...	...	—
Total						2,902



## REPAIRS AND IMPROVEMENTS.

Accumulations removed	...	...	...	...	8
Chimney Stack/Flues repaired	...	...	...	...	6
Drains cleared	...	...	...	...	27
Drains repaired or renewed	...	...	...	...	20
Dustbins provided	...	...	...	...	12
Eavesgutters repaired	...	...	...	...	17
External walls repaired	...	...	...	...	13
Floors repaired	...	...	...	...	12
Flushing Cisterns repaired	...	...	...	...	15
Gullies repaired/renewed	...	...	...	...	10
Houses Disinfested	...	...	...	...	6
Houses Fumigated	...	...	...	...	10
Rain water pipes renewed	...	...	...	...	17
Roofs repaired	...	...	...	...	10
Sinks provided	...	...	...	...	20
W.C. pans fixed	...	...	...	...	23
Wall and Ceiling plaster renewed	...	...	...	...	17
Windows repaired/renewed	...	...	...	...	10
Total					253

## Section B.

### FOOD.

I. Food premises in the district number 228.

II(a) Premises registered under the Food and Drugs Act.

Ice Cream	...	...	...	...	77
Potted, pickled, preserved food					
(Meat products, fish cakes, etc.)	...				18
Fried fish shops	...	...	...	...	12

II(b) Dairies and Milk Supply.

There are eighteen distributors of milk in the Borough and eight premises are in use as dairies (including stores). Two persons sold milk from shops dealing in other food and sterilised milk was sold by one vendor.

The standard of cleanliness of milk and premises was maintained during the year and sampling results were generally satisfactory. Most of the milk sold is bottled outside the district in a large establishment and the trend is more and more towards the milkman becoming a distributor only. This centralisation is probably beneficial and allows less scope for deterioration of standards provided that the delivery of the bottled article is not delayed at any point en route to the consumer.

The pasteurisation of all milk is now the obvious next step forward but no legislation is forthcoming at this stage, neither can I report that any progress has been made in the abolition of the milk bottle.

A change in the law on licensing came into force with the Milk (Special Designations) Order 1960 and from 1st January 1961 licences will be granted by the Food and Drugs Authority for designated milks which in this area means all milk.

The number of administrative bodies involved in milk from the time it leaves the cow gets no less and I think that it is not impracticable for one authority to have complete control and responsibility of milk production and distribution.

Sampling carried out during the year 1960 gave the following results:—

Tuberculin Tested—6 Satisfactory.

Pasteurised—1 Satisfactory.

T.T. (Pasteurised)—1 Satisfactory.

III. Food shops and premises were visited and inspected as the opportunity occurred but no comprehensive inspection was practicable to cover all aspects of the Food Hygiene Regulations.

So far as has been observed no deterioration in standards or interest in the subject has taken place; on the contrary it is evident from the class of work and materials selected by

certain food shops on carrying out alterations that the value of good hygienic standards is appreciated. No legal action was necessary during the year and three hundred and sixty-one visits were made to food establishments.

#### IV. Educational Activity.

No organised scheme was carried out to stress food hygiene but reliance was placed on informal talks with food handlers.

#### V. Disposal of Condemned Foodstuffs.

No change has taken place in the methods of disposal of unsound food. The system of deep burying of unsound food on the refuse tip and the collection for industrial salvage of slaughterhouse material continues satisfactorily.

#### VI. No large stocks of food were inspected during the year.

#### VII. Ice Cream Heat Treatment Regulations 1947-52.

Seventy-seven premises (mostly foodshops) are registered for the sale and storage of ice cream. There are six premises registered for the manufacture of this commodity, three manufacturers use a hot mix and three a cold mix. Quantities are small in each case.

Inspection of premises and plant reveals that the standard of hygiene has been maintained. Manufacturers are always particularly anxious to have their product achieve a good sampling result. It is evident however, that, like the milk distribution trade, the business of small manufacturers is dwindling in the face of the ready-made pre-packed article supplied by large wholesale firms of national repute.

Sample results from locally manufactured ice cream yielded the following:—

Grade I	10	} Satisfactory
Grade II	2	



## VIII. Food Hygiene Regulations 1960.

Every opportunity has been taken while visiting food premises to further the cause of hygiene handling of food-stuffs and to offer advice on premises and equipment. No organised inspection has been made to carry out a comprehensive survey of food premises. It was noted that the standards generally have been maintained and in many cases improved upon. No prosecutions were necessary during the year for offences under these regulations.

### **Slaughterhouses and Meat Inspection.**

There are two private slaughterhouses in the district which are licensed annually by the Local Authority. No change of any note can be reported in this field. Both slaughterhouses are maintained and managed in a satisfactory manner and daily inspection is carried out.

During this year a report was prepared as required by the Slaughterhouses Act 1958 and submitted to the Ministry of Agriculture, Fisheries and Food. This report reviewed the existing and probable slaughtering requirements of the district and also the slaughterhouse facilities existing or likely to be available in the future. It was evident from consultations with all persons interested that the existing two slaughterhouses were suitable and sufficient for all the slaughtering requirements of the district in the fore-seeable future and this fact was set out in the report which was accepted by the Ministry without alteration.

Certain improvements including the provision of stunning pens for cattle, are to be carried out to both these slaughterhouses in the near future.

Every animal slaughtered in these establishments was inspected after slaughter and before release to the shops and one inspector was occupied whole time on this task.

The small amount of tuberculosis discovered in meat animals compared with former years is once again a welcome feature and this is due to the eradication scheme so far as cattle are concerned and to the compulsory boiling of swill for pig feeding.

The following table shows the number of animals slaughtered and condemnations during the year.

### CARCASES INSPECTED AND CONDEMNED.

		Cattle excluding Cows			Sheep and Lambs			Horses
		Cows	Cows	Calves	Lambs	Pigs	Horses	
Number killed	...	2,840	3,084	286	21,639	5,752	—	
Number inspected	...	2,840	3,084	286	21,639	5,752	—	
<b>All Diseases except Tuberculosis and Cystercerci</b>								
Whole carcasses condemned		1	11	22	28	3	—	
Carcases of which some part was condemned			557	—	66	33	—	
Percentage of number inspected affected with disease other than Tuberculosis and Cystercerci		0.96		4.16	0.43	0.63	—	
<b>Tuberculosis only.</b>								
Whole carcasses condemned		—	3	2	—	2	—	
Carcases of which some part or organ was condemned			58	—	—	16	—	
Percentage of the number inspected affected with Tuberculosis		1.03		0.69	—	0.31	—	
<b>Cystercercosis</b>								
Carcases of which some part or organ was condemned		—	—	—	—	—	—	
Carcases submitted to treatment by refrigeration		—	—	—	—	—	—	
Generalised and totally condemned		—	—	—	—	—	—	

Total Weight of Meat Condemned, 16 Tons, 10 cwt., 9 Lbs.

### Other Articles of Food Surrendered.

Tinned Meats	...	...	...	2,555 lbs.
Tinned Fruits	...	...	...	501 "
Tinned Vegetables	...	...	...	348 "
Tinned Fish	...	...	...	102 "
Tinned Milk	...	...	...	132 "
Bacon	...	...	...	293 "
Fish	...	...	...	277 "
Flour	...	...	...	100 "
Total				<hr/> 3,308 " <hr/>

### WATER SUPPLY

(I) The supply of water for the entire district is drawn from Ennerdale Lake, the daily amount of treated water being 5,724,640 gallons. This supply has proved satisfactory both in quality and quantity.

(II) The supply is brought by pipeline to the town. Bacteriological examinations are carried out on water before and after treatment and the results of samples examined are set out in the appendix to this report. The water is treated immediately it leaves the lake and the treatment consists of dosing for rectification of lack of hardness and by chlorination. The water is an upland surface water and is naturally soft.

(III) Plumbo-solvency. There is no evidence to show that the water has plumbo-solvent properties.

(IV) The gathering grounds and lake are reasonably free from contamination by undesirable matter, there being few dwellings and no arable land in the area.



(V) The number of dwellinghouses supplied with water is 7,596 and the population 26,300. All the houses are supplied direct.

*Sewerage:* With the exception of the village of Sandwith, the district is fully sewered. The problem of providing a sewerage system for Sandwith has been under consideration for some time but no decision has been arrived at. The sewage from the remainder of the district is discharged untreated to the sea, the outfalls being sited at about Low water mark (ordinary spring tides). The portion of the coast at the points of discharge is unfrequented and unattractive.

### **Section C.**

#### **MISCELLANEOUS.**

##### **I. Factories Act 1937-59.**

Inspections of factories carried out during the year are shown in the tables annexed.

##### **II. Rag Flock and Other Filling Materials Act 1951.**

There are two premises licensed under this act. One is a modern factory situated on the outskirts of the district where animal hair imported in bales is processed into curled hair for the upholstery trade. This factory also manufactures synthetic foamed rubber for the same purpose. A store nearer the town centre is licensed for the storage of the products.

The factory is spacious, of good design and situated away from dwellinghouses. Satisfactory standards were observed during the year.

##### **III. Pet Animals Act.**

Two small shops hold annual licences for the sale of pets. The trade in pets is small being confined to the sale of a few birds and goldfish and no problems arose in this field.



#### IV. Offensive Trades.

Three premises are registered as offensive trades viz : — a rag and bone dealer, a tripe and gut preparer and a fat melter. No nuisances arose from these trades and satisfactory conditions were maintained.

#### V. Rodent Control.

The problem of control of rats and mice has never been large in the town and during the year no major infestation took place. Numerous minor complaints were received, mostly concerning mice in new dwellinghouses, and these were dealt with speedily without charge.

Sewers and tips were baited regularly and although rats exist the evidence is that they are nowhere numerous.

#### VI Smoke Abatement and Atmospheric Pollution.

This problem is not large and little can be reported on for the year. No serious nuisance arose from smoke during the year. The working of locomotives in the dock area, together with smoke from coal fired steamers preparing for sea, gives rise to complaint in one section of the town. Technically, difficulties are encountered in attempting to burn coal smokelessly in the furnaces of locomotives and this problem is likely to remain unless the operators revert to the use of coke which was the standard fuel for locomotives until about 1890. With regard to steamers, the permitted period is an obstacle to the attainment of satisfactory atmospheric conditions in the area.

No proceedings were taken against occupiers during the year. The emissions from one important section of a large chemical factory were greatly improved during the year and this progress is welcomed after so long a period of intense experiment and research by the company concerned. Negotiations have taken place from time to time with the management on atmospheric pollution caused by this industry and it should be recorded that the company have spared no effort to tackle this difficult problem.

## VII. Collection and Disposal of Refuse.

This service is undertaken by the Borough Engineer's department. All household and trade refuse is disposed of by tipping in a large disused quarry on the boundary of the district.

## VIII. Disinfections and Verminous Premises.

The treatment of rooms following infectious disease has fallen over the last few years and it was necessary to treat only one house during the year.

Verminous premises are nowadays limited to a very small number of bed-bug cases. Infestations by cockroaches are still fairly common and treatment for these pests as well as for flies, bluebottles, ants and silverfish constituted the main work in this sphere.

## IX. Public Swimming Baths.

There is one establishment in the town. This is owned and managed by the local authority and is well patronised. The baths have been in operation for upward of fifty years and improvements have been carried out from time to time. Chlorinated water is taken from the mains for filling the bath and filtration is by pressure sand filters. Continuous circulation gives a change period of 4 hours and visual colour testing for pH. value and free chlorine is carried out three times a day.

Samples for bacterial examination are taken occasionally and have regularly satisfied the standards for swimming bath water recommended by the Public Health Laboratory Service.

I am,

Yours faithfully,

A. A. BELDON,

Chief Public Health Inspector.

# APPENDIX





# WATER ANALYSIS

Date	Before or after Chlorination	Number of Organisms per ml.			Probable No. of Coliform organisms per 100 mls	Clostridium Welchii per 50 mls.	Remarks
		after 48 hours at 37°C.	on Nutrient Agar after 3 days at 20/22°C.				
20.1.60	After	1	0		0	Absent	Satisfactory Sample.
1.3.60	After	0	3		1	Present	Satisfactory Sample.
4.4.60	After	2	0		0	Present.	Satisfactory Sample.
30.5.60	After	0	163		0	Present	Satisfactory Sample.
29.6.60	After	1	41		3	Present	Not wholly satisfactory for a chlorinated supply.
3.9.60	After	5	90		1	Present after 3 days	Satisfactory Sample.
24.10.60	After	0	0		0	Present	Satisfactory Sample
6.12.60	After	0	2		0	Absent	Satisfactory Sample.

Public Analyst's Laboratory,  
Flag Lane,  
WARRINGTON.

23rd December, 1960.

A. A. BELDON, Esq.,  
Chief Public Health Inspector.  
53, Duke Street,  
WHITEHAVEN.

R E P O R T upon the analysis of one sample of water.  
received on 21st December, 1960.

SAMPLE MARKED:—Sample of water from Ennerdale Lake  
taken direct from Lake before chlorin-  
ation. 15.00 hrs. 20.12.60.

**Analysis.**

Appearance	...	...	...	clear and colourless
Odour	...	...	...	nil.
Reaction pH	...	...	...	6.05
				Parts per million.
Total solids	...	...	...	31
Nitrogen as free and saline ammonia				0.015
Nitrogen as albuminoid ammonia				0.05
Nitrogen as nitrites	...	...	...	Nil
Nitrogen as nitrates	...	...	...	1.0
Chlorides, as Cl.	...	...	...	10
Oxygen absorbed from perman- ganate in 4 hrs. at 27°C.	...	...	...	0.65
Total hardness	...	...	...	10
Temporary hardness			...	8
Permanent hardness	...	...	...	2
Alkalinity	...	...	...	10
Free chlorine	...	...	...	Nil
Poisonous metals	...	...	...	Nil
Potassium, as K	...	...	...	0.3
Anionic Detergents	...	...	...	Nil

**Opinion.**

The pH value of the sample is low and indicates some corrosive properties in the water. The organic condition is satisfactory, if the water is chlorinated before it is supplied for domestic purposes.

for RUDDOCK & SHERRATT.

Signed: J. GRAHAM SHERRATT.



**Annual Report of the  
Medical Officer of Health  
in respect of the Year 1960  
for the  
Borough of Whitehaven  
in the  
County of Cumberland**

**Prescribed Particulars on the Administration  
of the Factories Act, 1937.**

## PART 1 OF THE ACT.

### 1. INSPECTIONS for purposes of provisions as to health.

Premises (1)	No. on Register (2)	Number of Occupiers		
		Inspec- tions (3)	Written notices (4)	Prose- cuted (5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities ... ..	9	35	—	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority. ... ..	88	70	—	—
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding outworkers' premises). ... ..	13	13	—	—
Total	110	118	—	—

### 2. Cases in which DEFECTS were found.

Particulars. (1)	Found (2)	Reme- died (3)	Number of cases in which Defects were found		
			Referred to H.M. In- spectors (4)	by H.M. In- spectors (5)	number of cases in which prose- cutions were in- stituted (6)
Want of cleanliness (S.1)	—	—	—	—	—
Overcrowding (S.2) ...	—	—	—	—	—
Unreasonable temperature (S.3)	—	—	—	—	—
Inadequate ventilation (S.4)	—	—	—	—	—
Ineffective drainage of floors (S.6) ... ..	—	—	—	—	—
Sanitary Conveniences (S.7)					
(a) Insufficient ...	—	—	—	—	—
(b) Unsuitable or defective	2	3	—	1	—
(c) Not separates for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to Out Work)	—	—	—	—	—
Total	2	3	—	1	—

# **PART VIII. OF THE ACT. OUTWORK.**

**(Sections 110 and 111).**

Nature of Work  (1)	Section 110.		Section 111.			
	No. of out- workers in August list required by Section 110(1) (c) (2)	No. of cases of default in sending lists to the Council (3)	No. of prose- cutions for failure to supply lists (4)	No. of instances of work in unwhole- some premises (5)	Notices served (6)	Prose- cution (7)
Wear (Making apparel etc.)	4	—	—	—	—	—
Cleaning and wash- ing Household linen	—	—	—	—	—	—
Lace, lace curtains and nets	—	—	—	—	—	—
Curtains and furniture hangings	—	—	—	—	—	—
Furniture and Upholstery	—	—	—	—	—	—
Electro-plating	—	—	—	—	—	—
File making	—	—	—	—	—	—
Brass and brass articles	—	—	—	—	—	—
Fur pulling	—	—	—	—	—	—
Iron and Steel cables and chains	—	—	—	—	—	—
Iron and Steel An- chors and grapnels	—	—	—	—	—	—
Cart gear	—	—	—	—	—	—
Locks, latches and keys	—	—	—	—	—	—
Umbrellas etc.	—	—	—	—	—	—
Artificial flowers	—	—	—	—	—	—
Nets, other than wire nets	—	—	—	—	—	—



**PART VIII. OF THE ACT.  
OUTWORK.  
(Sections 110 and 111).**

Nature of Work  (1)	Section 110.			Section 111.		
	No. of out- workers in August list required by Section 110(1) (c) (2)	No. of cases of default in sending lists to the Council (3)	No. of prose- cutions for failure to supply lists (4)	No. of instances of work in unwhole- some premises (5)	Notices served (6)	Prose- cution (7)
Tents	—	—	—	—	—	—
Sacks	—	—	—	—	—	—
Racquet and tennis balls	—	—	—	—	—	—
Paper bags	—	—	—	—	—	—
The making of boxes or other receptacles or parts thereof made wholly or partially of paper	—	—	—	—	—	—
Brush making	—	—	—	—	—	—
Pea picking	—	—	—	—	—	—
Feather sorting	—	—	—	—	—	—
Carding etc., of buttons, etc.	—	—	—	—	—	—
Stuffed toys	—	—	—	—	—	—
Basket making	—	—	—	—	—	—
Chocolates and sweetmeats	—	—	—	—	—	—
Cosaques, Christ- mas stockings, etc.	—	—	—	—	—	—
Textile weaving	—	—	—	—	—	—
Lampshades	—	—	—	—	—	—
Total	4	—	—	—	—	—



GEO. TODD & SON  
PRINTERS  
WHITEHAVEN